

Claims

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1. A method of increasing the anaerobic working capacity of a tissue comprising:
providing an amount of beta-alanine to blood or blood plasma effective to increase beta-alanylhistidine dipeptide synthesis in a tissue;
providing an amount of L-histidine to the blood or blood plasma effective to increase beta-alanylhistidine dipeptide synthesis; and
exposing the tissue to the blood or blood plasma, whereby the concentration of beta-alanylhistidine is increased in the tissue.

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2. The method of claim 1, further comprising increasing a concentration of creatine in the tissue.

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3. The method of claim 1, wherein the providing steps include ingestion of a composition including the amount of beta-alanine and the amount of L-histidine.

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4. The method of claim 1, wherein the providing step includes infusion of a composition including the amount of beta-alanine and the amount of L-histidine.

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5. The method of claim 1, further comprising increasing a concentration of insulin in the blood or blood plasma.

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6. The method of claim 1, wherein the tissue is a skeletal muscle.

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7. The method of claim 1, wherein the tissue is a human tissue.

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1 ~~8.~~ The method of claim ~~1~~, wherein the tissue is
an animal tissue.

1 ~~9.~~ A composition consisting essentially of:
2 a peptide source including beta-alanine;
3 between about 39 and about 99 percent by weight of
4 a carbohydrate; and
5 up to about 60 percent by weight of water,
6 wherein the composition includes between about 1
and about 20 percent by weight of the beta-alanine.

1 ~~10.~~ The composition of claim ~~9~~, wherein the
2 peptide source includes L-histidine and the composition
3 includes between about 1 and about 20 percent by weight of
L-histidine.

1 ~~11.~~ A composition consisting essentially of:
2 a peptide source including beta-alanine;
3 between about 1 and about 98 percent by weight of
4 a creatine source; and
5 up to about 97 percent by weight of water,
6 wherein the composition includes between about 1
and about 98 percent by weight of the beta-alanine.

1 ~~12.~~ The composition of claim ~~11~~, wherein the
2 peptide source includes L-histidine and the composition
3 includes between about 1 and about 98 percent by weight of
L-histidine.